

ABSTRACT

The invention relates to an internal combustion engine with direct petrol injection and controlled ignition, comprising at least one cylinder (1), a cylinder head (6), sealing the cylinder (1), a piston (7), arranged to run in the cylinder (1), a combustion chamber (2), defined by the piston (7) and the cylinder head (6), a petrol injection means (3) into the combustion chamber (2), an ignition means (4), for producing an ignition of the air/petrol mixture in the combustion chamber (2), inlet (8) and exhaust (9) valves, selectively sealing the combustion chamber (2) and means for recirculation of at least a part of the exhaust gas into the combustion chamber (2) 5 during the air intake phase, characterized in that the pressure provided for the injection means (3) is greater than 250 bars, such as to homogenize the air/petrol/recycled exhaust gas mixture and increase the speed of combustion.

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